

Application No. 10/797,425
Response dated January 6, 2006
to Office Action mailed October 18, 2005

AMENDMENT TO THE ABSTRACT

Please replace the Abstract with the following amended paragraph:

A method for fabricating a SiGe thin layer semiconductor structure containing a substrate having a dielectric layer, a variable composition Si_xGe_{1-x} layer on dielectric layer, and a Si cap layer on the variable composition Si_xGe_{1-x} layer. The variable composition Si_xGe_{1-x} layer can contain a Si_xGe_{1-x} layer with be deposited to have a graded Ge content or can be deposited as a plurality of Si_xGe_{1-x} sub-layers-sublayers each with different Ge content. In one embodiment of the invention, the SiGe thin layer semiconductor structure contains a semiconductor substrate having a dielectric layer, a Si-containing seed layer is formed on the dielectric layer, and the variable composition Si_xGe_{1-x} layer is deposited on the seed layer, and a Si cap layer on the variable composition Si_xGe_{1-x} layer. A method and processing tool for fabricating the SiGe thin layer semiconductor structure are also provided.